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AUTHOR Dunlap, William S.
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ABSTRACT

This handbook is designed to assist area vocational-technical schools and community colleges in their efforts to provide a sequence of continuity for students who choose to continue their education in a similar occupational field. Although originally developed for the field of electronics, the guide is generic in the sense that it will work for programs in any occupational service area. It is also not restricted to use only by area vocational-technical schools and community colleges. The components of the articulation model described in the guide are based on a combination of research of the literature on articulation and through the experience of developing an agreement between two institutions. The guide is divided into nine sections. The first section gives a brief review of the need for articulation. The remaining eight sections deal specifically with the articulation process. Topics include the need for articulation, building a cooperative climate, establishing communications, developing committee assignments, reviewing alternatives, developing an agreement, closing the deal, gaining support, continuing communications, and following up. A bibliography and a list of resources is included in the guide. In the appendix a sample agreement is also included to assist local administrators in the articulation process. (KC)

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GUIDE TO ARTICULATION OF PROGRAMS

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Learning for a Lifetime
WASHBURN UNIVERSITY
School of Applied and Continuing Education

GUIDE TO ARTICULATION OF PROGRAMS

by

William S. Dunlap

August, 1985

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Forward

Articulation among all levels of education in America will become one of the most important goals for the remainder of this decade. Our institutions of learning will not expand, and may contract. At the same time the student and taxpayer as consumers of education are more demanding; and the need to know and access an ever-enlarging body of knowledge is increasingly critical to our lives and work.

Washburn's School of Applied and Continuing Education has adopted the motto, "Learning for a Lifetime" because we recognize our unique ring on the ladder of education. This recognition has allowed the School to help students enter and leave our educational programs with as much ease as possible. As dean of the School I am excited and proud of this work which has resulted in this guide on articulation. It puts in to narrative a part of our commitment.

Dr. William S. Dunlap, Assistant Dean of the School and author of this Guide is to be congratulated for his dedication. Our special thanks go also to Assistant Professor Jim Jaworski and to the Director of the KAW Area Vocational-Technical School, Mr. Roy Berry.

Reid A. Holland, Dean

INTRODUCTION

In 1983, the Vocational Administration Section of the Kansas State Department of Education provided a grant to the School of Applied and Continuing Education at Washburn University to develop a two year associate degree program in the emerging high technology field of electronics. As part of that project the School of Applied and Continuing Education chose to articulate its new program with another electronics program at the Kaw Area Vocational-Technical School. This Guide to Articulation of Programs (GAP) Handbook is a product of the second year of the grant.

The GAP handbook is designed to assist administrators in putting the pieces of student learning experiences together. The pieces or skills acquired by the student are disjointed because programs in the same career were designed to fit institutional structure.

The GAP is a practical handbook designed to assist area vocational-technical schools and community colleges in their efforts to provide a sequence of continuity for students who choose to continue their education in a similar occupational field. This guide is generic in the sense that it will work for programs in any occupational service area.

This GAP handbook is also not restricted to use only by area vocational-technical schools and community colleges. In fact, the sample joint program-student planning sheet found in Appendix B is from an articulated occupational agreement between a two year community college and a four year university program.

The components of this model are based on a combination of research of the literature on articulation and through the experience of developing an agreement between two institutions. Figure 1 shows the overall articulation model described in this guide.

It should be noted however, this guide does not present the only way to develop an articulation agreement. Local administrators are encouraged to adapt the recommendations found within the guide to meet their local needs.

This guide is divided into nine sections. The first section gives a brief review of the need for articulation. The remaining eight sections deal specifically with the articulation process. A sample agreement is also included as an appendix to assist local administrators in the articulation process.

Because the GAP handbook was designed to be practical and useable, every effort was made to describe each section in a succinct manner. Those who seek more in-depth information are encouraged to consult the references listed in the Bibliography and under Resources.

ARTICULATION PROCESS MODEL

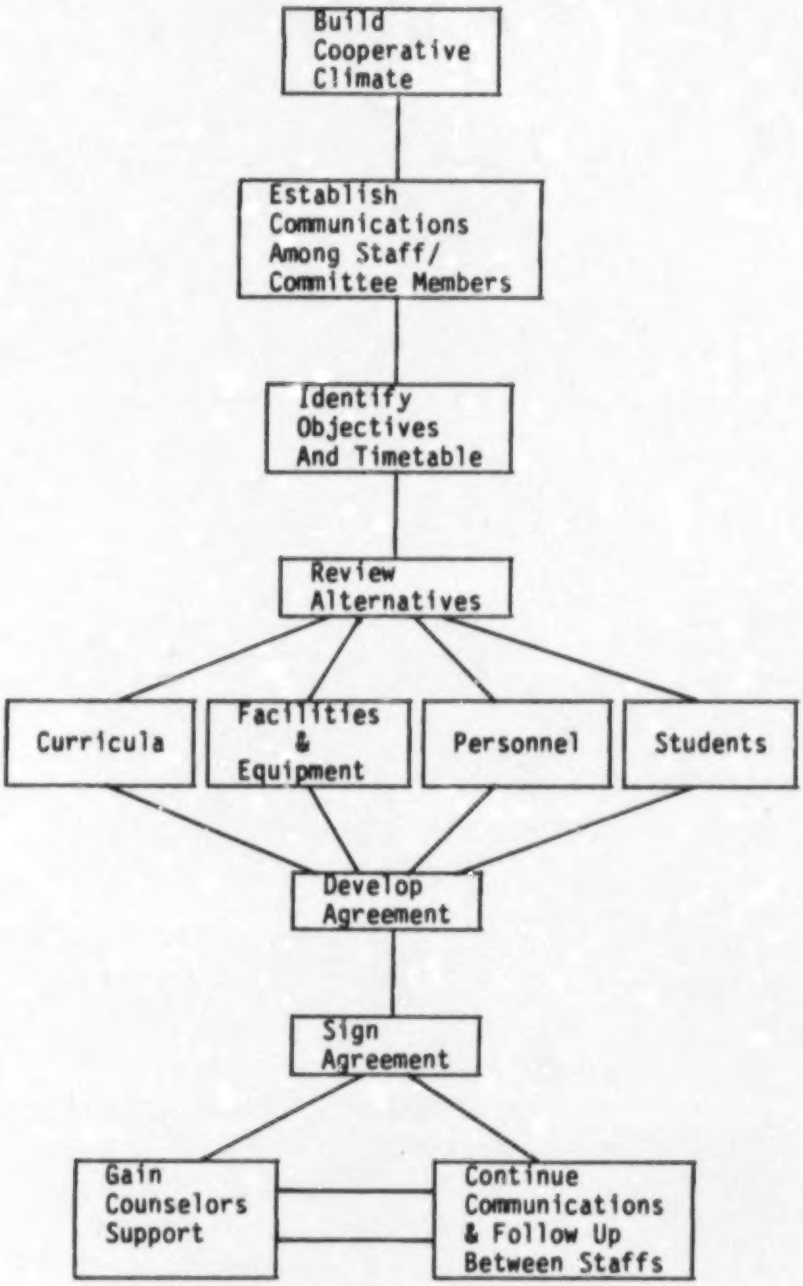

Figure 1

3

NEED FOR ARTICULATION

The term articulation has been defined a number of ways. According to Richard J. Ernst (1978):

> "Articulation is systematic coordination between an educational institution and other educational institutions and agencies designed to insure the efficient and effective movement of students among those institutions and agencies while guaranteeing the students' continuous learning advancement."

From another perspective, articulation has been defined as building bridges and linkages to put back together what has been segmented to fit institutional structures (Hoerner and Austin, 1979).

This process has been talked about and avoided by educators at different levels for years. While most would agree the intent and purpose are noble, few institutions/programs have achieved practical cooperative ventures.

There are many factors that contribute to the lack of cooperative articulation agreements between schools. A list of common barriers to forming articulation agreements are found in figure 2.

Administrators express concern over the effect of such agreements on present sources of funding. These financial concerns should be overcome through an understanding that such cooperative agreements actually provide an extension of limited resources. The new vocational education law (PL 98-524) further encourages more creative use of local funds (such as program articulation) by no longer providing funding for program maintenance.

BARRIERS TO ARTICULATION

- Definition Of Purpose Unclear
- Lack of Communications
- Student "Numbers" Orientation
- All Or None Attitude
- Concern For Tradition
- Emphasis On Negative
- Lack Of Trust
- Lack Of Confidence
- Low Priority Of Task
- Lack Of Formal Agreement

Modified From Hoerner, and Austin (1979).

Figure 2

5

Support and encouragement for program articulation from the Kansas Department of Education is also well documented. In a presentation by then Assistant Commissioner Harold Blackburn (1982) to community colleges and area vocational-technical school administrators he stated, "Greater cooperation between schools in the same geographic area needs to take place, especially in the area of program articulation."

Other problems hindering articulation include fear of loss of control over the program or loss of program identity. These problems which could be identified as "turf" related obstacles can be overcome by expanding communications among staff and administrative members of each institution. Building a cooperative climate and expanding communications are key factors needed to develop an agreement. (Project MAVE, 1978). In many cases meeting to develop an articulation may be the first time program directors and other instructional staff from the two institutions have ever established a communications network.

Another underlying factor preventing cooperation between institutions is the fear of not being able to maintain program standards. This problem is actually one of the easiest to overcome through competency based curriculums. With terminable objectives identified for each unit of instruction within each course it is easy to determine where programs overlap one another be it individual units or a complete course. Conversely this also identifies where programs differ.

NEED FOR ARTICULATION

- Students repeating the same content at different levels.
- Students experiencing disjointed, unsequenced content from educational level to level.
- Students experiencing gaps in continuity when some content is skipped in going from one level to another.
- Student matriculation from level to level not smooth because of a lack of information about the next level.
- Students using the same materials and/or textbooks at different levels.
- Needed student competencies not identified by each level and/or not communicated from one level to the next.
- Testing program not comprehensive nor coordinated level by level.
- Misunderstanding due to poor communications.
- Faculty members at different levels not being aware of what others are teaching.

From Project MAVE (1978).

Figure 3

The need for program articulation is clear (figure 3). Without it institutions continue to duplicate their efforts thereby wasting limited resources. Also students suffer unsequenced educational experiences at different levels while often repeating the same content. Hoerner and Austin (1979) summarized the process of articulation in the following manner:

> Articulation of vocational/occupational education programs is not a complex procedure, once its concepts are accepted and the participants become used to the requirements of cooperation, coordination and communication (p. 8).

To achieve the objective of developing an articulation agreement a plan must be developed to overcome pitfalls and barriers. A suggested articulation process model is depicted in figure 1. The following is a narrative guide through each step of the model.

Building a Cooperative Climate

One of the critical elements to developing an articulation agreement between institutions is to create a cooperative climate in which key personnel from each institution can meet. Creating this environment is the responsibility of the top administrators from the cooperating institutions.

The administrators must provide leadership and encouragement to their program directors/instructors to work together in order to achieve the common goal of program articulation. Without administrative support and enthusiasm the cooperative environment required for creative thinking and planning will not materialize. See aids to articulation in figure 4.

AIDS TO ARTICULATION

- Administrative Endorsement Of Process
- Climate Of Trust And Cooperation
- Faculty Emphasis On Development Process
- Open Communication
- Concern For Students Total Education
- Spelled Out Objectives For Articulation Committee
- Competency Based Instruction

Modified From Project MAVE (1978).

Figure 4

An initial "kick off" meeting should be held with all key administrators and program instructional staff members from both institutions to reinforce the importance of the task and to show administrative support to achieve a common objective. Administrators should agree in advance and charge the instructional staff with a tentative target date for completion of development of the articulation agreement. A sample timetable is shown in figure 5. The actual review of program curriculum should be carried out by a committee composed of instructors from both programs.

Estabishing Communications

In order to develop an articulation agreement a strong communication linkage between program directors/instructors from participatory institutions must be developed. According to Bushnell (1978) "The common denominator that dictates the success or failure of reaching an articulation agreement is the quality of interpersonal relationships. An atmosphere of trust and openess among staff members is essential to the success of the articulation process.

The following steps are suggested ways to nuture this communication process and move forward toward developing an agreement. Other factors leading to good articulation are listed in figure 4.

- Involve all Instructional Staff - All members of the instructional staff from each institution should be present at the initial meeting. In the case of large programs the program

TIMETABLE FOR

ARTICULATION PROCESS

September	October	November	December	January February	March	April	May
Building a cooperative climate Administrators meet to establish communications Identify objective and develop tentative date for completion	Kick off meeting with administrators & instructional staffs Establishing communications Program Directors meet to refine objectives & establish timetable	Develop committee assignments	Reviewing the alternatives; curriculums, facilities & equipment, personnel, & student populations	_____	Develop articulation agreement	Closing the deal Sign agreement Gain support of academic counselors	Continued communication & follow up Develop planned follow up

11

Figure 5

directors may want to reduce actual work on the articulation document to a committee of no more than 3 or 4 from each institution.

- Charge of the Committee - An outline of general goals and tentative completion date should be agreed upon in advance by the administrators of the cooperating institutions and distributed at the initial meeting.

- Introductions - Each staff member should be given an opportunity for self-introduction and explain his/her teaching responsibility with the program.

- Review of Program - Each program director should give a brief history and overview of the program at his/her institution.

- Explain Process - The two program directors should review why articulation is needed, aids to articulation and benefits of articulation (figures 3, 4 and 6).

- Exchange Curriculum Materials - Copies of each program's curriculum materials should be exchanged at this meeting.

- Review Articulation Models - Copies of any articulation models that might serve as a guide to the process should also be shared and reviewed.

- Alternate Meeting Site - Meetings should alternate between participatory institutions.

BENEFITS OF ARTICULATION

- Students Awarded Advanced Standing For Previous Work
- Skills And Competencies Are Sequential
- Improved Utilization Of Personnel
- Sharing Of Resources
- Serve As A Model Agreement For Articulation Of Other Programs Between Institutions
- Improve Communications Between Institutions
- Give Recognition To Cooperating Programs
- Give Recognition To Participating Institutions
- Assist Sending School In Recruiting High Quality Students
- Assist Receiving School In Recruiting Successful Students

Figure 6

- Tour Each Others Facilities - All instructional staff from the cooperating institutions should have a tour of each others facilities and equipment. This should occur at the first two meetings.

Developing the Committee Assignments

A meeting of the two program directors should be held after the initial meeting with all instructional staff. The purpose of this meeting is to develop plans to guide the articulation committee through development of the agreement. The program directors should develop a list of objectives for reviewing the resources of each program. A timetable for completing the project should also be developed.

Committee meetings should be scheduled at regular intervals and at least on a monthly basis to review progress. Meeting agendas, minutes from previous meetings and other information should be distributed to members in advance. Administrators should be regularly informed of progress but not become involved until a tentative agreement is reached or a major obstacle arises.

Reviewing The Alternatives

Reviewing the alternatives is the most time consuming step of the process. This step actually involves a thorough review of the curriculum, facilities and equipment resources, instructional personnel resources and advantages to the student of each program.

After this indepth review several alternatives may be suggested for consideration. The number of alternatives are limited only by the imagination and creativity of the articulation committee. The important factor to keep in mind is to allow students the greatest flexibility without duplication of coursework while maintaining individual program standards. Some alternatives that have worked between various programs at different institutions are listed below:

- Course waived - The student is exempt from taking a course. Example: Receiving program may have a course which does not directly correspond to a specific course from the sending school. However, a graduate of the sending school has achieved all the course objectives through two or more courses (this is usually an introductory course at the receiving school).

- Partial Credit - The student is given partial credit because of previous coursework. Example: The student is exempt from the laboratory section of a course because of experience from sending program, but must still attend lecture portion of course because it is at a more advanced technical level.

- Credit by Examination - The student is given credit at receiving school after successfuly passing an examination of a specific course before credit is posted on student transcript at the receiving school. This may be a written and/or oral examination.

In instances where credit by examination is the alternative selected to receive advance standing it is beneficial to allow representative of the sending school to review the examination and make suggestions.

- Transfer Credit - The student is given credit at receiving school and the course is listed directly on receiving school transcript.

Developing The Agreement

No matter how simple the articulation agreement might be, the document should specify the responsibilities of each institution. A sample of articulation agreement is included in Appendix A.

At a minimum the following items should be included:

- Purpose - The objective of the agreement should be clearly stated.
- Participants - The official name of each institution and specific program involved should be included.
- Student Benefits - Courses eligible for partial credit, full credit, to be challenged or waived should be identified.
- Student Eligibility - Requirements for student participation should be identified.
- Publication of Agreement - Each institution should communicate through program literature the articulation agreement including student participation requirements and benefits.

- Review of Agreement - An annual date should be specified to review the document for changes and appropriateness.

- Termination of Agreement - Identify rules for termination or dissolution of agreement with appropriate lead time so students in the "pipe line" may complete the program.

- Signatures - Appropriate administrative personnel from each institution should sign the agreement.

Closing the Deal

Having a signed document is a significant factor to the success of articulation agreements (Horner and Austin, 1979). It produces a stronger commitment by both parties. A signed agreement also aids in preventing misunderstandings that may occur over time as administrative and instructional staff change at the participating institutions.

After the articulation document has been developed and agreed upon by the program director from each institution it is ready for the signature of appropriate administrators. The signing of the agreement should be given ceremonial status.

All appropriate administrators who are to sign the document should be present. Instructional staff members should also be invited. This ritual reinforces the importance of the work that has gone into the articulation agreement and reemphasizes administrative commitment to the process. An official signing ceremony also provides an opportunity for a press release of the agreement and pictures to promote the programs at each institution.

Gaining Support of Counselors

Another important group to consider for success of the articulation agreement is student academic counselors. Gaining the support of each school's academic counseling staff is an important part of making the agreement work and keeping students informed.

The support and enthusiasm of the counselors can not be accomplished at a single meeting. They should be introduced to staff and given a tour of the facilities, have the agreement explained and be given the opportunity to ask questions. The relationship with academic counselors, like that of staff members of each participating institutions, must be constantly nurtured to be successful.

To further assist the counselors in how the agreement works, a joint program - student planning sheet should be developed. A sample planning sheet is found in Appendix B. Additionally program directors should annually write a follow up report to the school counselors on the success of students in the program from that institution.

Continued Communication and Follow Up

In order to foster maximum benefits from the articulation agreement instructional staff from the two institutions should continue to communicate with one another during the school year. Insufficient follow-up activities between instructional staff has been identified as an inhibitor to successful articulation. (Woelfer, 1978). Some suggested activities for keeping communication channels open are listed below:

- Guest Lecturers - Instructors may serve as guest lecturers for each others program.

- Share Information - Instructors can provide inservice presentation to staff members of both programs after attending workshops.

- Share Inservice Cost - Administrators may share cost of an inservice program for instructional staff for both instititions.

- Review Program - A special day could be designated to have program director of the receiving program meet with and explain articulation benefits to interested students at the sending school campus.

- Exchange Judges - Instructional staff could serve as judges of term projects at other institutions.

- Advisory Board Appointment - Instructors could serve as ex officio member of other institutions program advisory board.

- Program Update Meeting - Instructional staff should hold at least one annual joint meeting. The meeting should alternate between institutions to introduce new members and provide an update of program status and service success of articulated students.

Bibliography

Bushnell, D. and others. Articulating Vocational Education at the Post-Secondary Level: Papers from the AACJC/AVA Joint Study. 1977 (ERIC Document Reproduction Service No. ED 160150)

Blackburn, H. Presentation to Kansas Area Vocational Technical School and Community College Administrators, October, 1982.

Hoerner, J. L. and Austin, G. L. (Eds.). Articulation Workshop for Key Secondary and Community College Personnel. Blacksburg, VA: Virginia Polytechnic Institute and State University, October 23-25, 1978. (ERIC Document Reproduction Service No. ED 164988)

Project MAVE. Model for Articulated Vocational Education. A Final Report. Springfield, IL: Illinois State Office of Education, 1978. (ERIC Document Reproduction Service No. ED 162 083)

Public Law 98-524. Carl Perkins Vocational Education Act of 1984. 98th Congress, October 19, 1984.

Woelfer, C. The Articulation of Occupational Education Programs between Secondary Schools and Community Colleges/Technical Institutes Project. Raleigh, NC: North Carolina State Department of Community Colleges, July, 1978. (ERIC Document Reproduction Service No. ED 164 887)

Resources

A Community Approach - Industrial Education Articulation Model 7-14. Sacramento, CA: American River College, July, 1982.

Bangasser, V. and others. An Emerging Technology Curriculum. A Model with Task Listings. Springfield, IL: Illinois State Department of Education, Division of Adult and Vocational Education, June, 1984. (ERIC Document Reproduction Service No. ED 246 233)

Bushnell, D. S. "Closing The Gap and Eliminating The Overlap." American Vocational Journal. April, 1978, p. 21-23.

Campbell, C. P. "Articulation and Occupational Education." Man/Society/Technology. April, 1977. p. 218-220.

Hampson, K. "Ways to Curb The Resource Wastage in Duplicated Courses." Times Higher Education Supplement. December 2, 1977, 317, 13.

Knight, M. Curriculum Articulation as a Means of Meeting the High Technology Challenge. June, 1984. (ERIC Document Reproduction Service No. ED 239 101)

Moore, G. Curriculum Articulation with Secondary Institutions, July, 1984. (ERIC Document Reproduction Service No. ED 241 108)

Petry, J. and others. Tennessee Vocational Education Articulation Project & Final Report. Nashville: Tennessee State Department of Education, Division of Vocational-Technical Education, October, 1979. (ERIC Document Reproduction Service No. ED 170 575)

Philbin, A. and others. "The Big Issues." Community and Junior College Journal, April, 1982, p. 23-25.

Policies and Procedures Guide for the Articulation of Vocational/Occupational Education Programs between North Carolina Public High Schools and Community Colleges/Technical Institutes. (State Pilot Model). Washington, D.C.: Bureau of Occupational and Adult Education, Department of Health, Education and Welfare. June, 1979. (ERIC Document Reproduction Service No. ED 164 888)

Thompson, J. W. "Growing Role of Community Colleges." Journal of College Student Personnel, January, 1978, p. 11-15.

APPENDIX A

ARTICULATION AGREEMENT

(Sample)

between

KAW AREA VOCATIONAL TECHNICAL SCHOOL

and

ELECTRONIC MAINTENANCE TECHNOLOGY

SCHOOL OF APPLIED AND CONTINUING EDUCATION

WASHBURN UNIVERSITY

ARTICLE I: DEFINITION

"Articulation is systematic coordination between an educational institution and other educational institutions and agencies designed to insure the efficient and effective movement of students among those institutions and agencies while guaranteeing the students' continuous learning advancement." (Richard J. Ernst, "Articulation: A Working Definition", Community College Review, Spring, 1978). It is "a process of continued specific communication between institutions and common programs, with the student as the primary beneficiary, whereby the economic and timely transfer of the student between institutions is accomplished" in such a manner as "to provide the articulating student with appropriate, non-duplicative learning at the upper level institution to satisfy degree requirements," and to do so "within such a time frame as not to disrupt the continuity of education and career progression." (MICHRIE Articulation Task Force, October, 1983.)

ARTICLE II: PURPOSE

The purpose of this agreement is to provide a mechanism which will enable graduates from Kaw Area Vocational Technical School, Electronic Technology program to articulate into Washburn University's School of Applied and Continuing Education, Electronic Maintenance Technology degree program with advanced academic standing as provided for in Article IV of this agreement.

ARTICLE III: PARTICIPATION

Kaw Area Vocational Technical School, Electronic Technology program and Washburn University's School of Applied and Continuing Education, Electronic Maintenance Technology degree program enter into this agreement as equal partners and agree to participate in and administer the agreement in a manner that will maintain the integrity and foster the further growth and development of articulation.

ARTICLE IV: REQUIREMENTS

Section I: Criteria for Graduation

Kaw Area Vocational Technical School and Washburn University's School of Applied and Continuing Education, agree that any person who has earned the Certification of Completion in Electronic Technology from Kaw Area Vocational Technical School, and receives a letter of recommendation from the School's director, may transfer to Electronic Maintenance Technology at Washburn and receive a waiver for ET101, advanced placement credit in ET110 and ET115 by matriculation examination, and will be eligible for challenge examinations in ET210, ET220, ET222, ET225, ET240, and PS170 (see Attachment A).

Washburn University strongly recommends the student also complete two years of algebra and one year of physics as part of their school district's graduation requirements.

Section II: Degree Requirements

This transfer eligible person will graduate with an Associate of Applied Science in Electronic Maintenance Technology from Washburn University by completing the following requirements from Washburn University.

1. Complete a minimum of 62 credits.

2. Earn a minimum of 12 credits in the School of Applied and Continuing Education, Washburn University.

3. Earn a minimum of 24 credits at Washburn University.

3. Earn a minimum of 12 of the last 24 hours of the degree program at Washburn University.

5. Earn a minimum of 42 graded credits.

6. Meet Washburn University general education and university graduation requirements

7. Earn a minimum grade of "C" in all major and required related courses.

8. Achieve a minimum overall grade point average of 2.0.

Section III: Washburn University's School of Applied and Continuing Education, Electronic Maintenance Technology Responsibilities

Electronic Maintenance Technology program further agrees:

1. To develop a plan of study consistent with articulating the student's career goals that provides for satisfaction of the degree requirements, (see Attachment B).

2. To provide and/or otherwise advise the student of opportunities for demonstrating proficiency in areas in which he or she may already be competent for advanced standing in the above specified courses.

ARTICLE V: COMMUNICATION

Kaw Area Vocational Technical School, Electronic Technology program and Washburn University's School of Applied and Continuing Education, Electronic Maintenance Technology degree program agree to cooperate in communicating with each other and with common and respective publics concerning the agreement between their respective programs. Communication will include the development of various kinds of publications to inform people who might benefit personally from the opportunities provided by an associate of applied science degree program at Washburn University based on Certificate of Completion in Electronics Maintenance at Kaw Area Vocational Technical School and should include mention of the articulation agreement in the catalogs of the respective institutions.

ARTICLE VI: REVIEW

Section I: Responsibility

Kaw Area Vocational Technical School, Electronic Technology and Washburn University's School of Applied and Continuing Education, Electronic Maintenance Technology degree program agree to communicate concerning changes which affect the agreement. Responsibility for communication related to this agreement will be given to the lead electronic technology instructor at Kaw Area Vocational Technical School and the Program Director of Electronic Maintenance Technology at Washburn University's School of Applied and Continuing Education.

Section II: Process

The agreement will be reviewed annually by August 1 for the following academic year for the purpose of assessment, revision and appendage. If there is not significant change, the agreement will be considered as being automatically renewed until such time as either or both parties shall decide to revise, append or terminate the agreement.

ARTICLE VII: TERMINATION

The agreement may be terminated by either program with the approval of its respective institution.

1. Notification to terminate the agreement must be in writing and submitted no later than the annual review.

2. The agreement shall be honored the two full academic years immediately following the notification to terminate so that those under the agreement at the time of termination may finish their plan of study.

Signed:

Superintendent Date
USD #501

Director Date
Kaw Area Vocational Technical School

Signed:

President Date
Washburn University

Dean Date
School of Applied and Continuing Education

ATTACHMENT A

ARTICULATION OF WASHBURN UNIVERSITY'S
ELECTRONIC MAINTENANCE TECHNOLOGY CURRICULUM WITH
KAW AREA VOCATIONAL TECHNICAL SCHOOL

COURSE NUMBER	COURSE TITLE	CREDITS	WAIVE	ADVANCED PLACEMENT MATRICULATION EXAMINATION	CREDIT BY EXAM.	REQUIRED
ET101	The Maintenance of Electronics	2	X			*
ET110	Solid State Electronics	3		X		X
ET115	Digital Electronic Circuit Fundamentals I	3		X		X
ET210	Digital Electronic Circuit Fundamentals II	3			X	X
ET220	Electronic Controls & Industrial Applications	3			X	X
ET222	Intro to Microcomputers	4			X	X
ET225	Advanced Microcomputers	4			X	X
ET240	Technical Troubleshooting Techniques	3			X	X
ET250	Directed Field Experience	3				X
PS170	Basic Electronics	4			X	X
CM110	Intro To EDP	3				X
EN208	Business & Tech. Writing	3				X
MA116	College Algebra	3				X
MA227	Trigonometry	3				X
PS151	Intermediate Physics	5				X
EN101	Freshman Composition	3				X
	PE Electives	2				X
	Social Sciences	6				X
	Natural Sciences**	6				X
	Humanities**	6				X

*Student must still complete 62 credit hour degree requirement.
**May be met by required related courses.

ADVISING SHEET: ELECTRONIC MAINTENANCE TECHNOLOGY

Student: _____ DATE: _____

Address: _____ Advisor: _____

Phone: _____

Attachment B

GENERAL EDUCATION & UNIVERSITY REQUIREMENTS:

Social Science (6 hrs)	Planned	Taken	Grade
Natural Science (6 hrs)			
Humanities (6 hrs)			
English 101			
PE (2 hrs)			
REQUIRED MAJOR COURSES:			
ET 101-2 - The Maintenance of Electronic Systems			
ET 110-3 - Solid State Electronics			
ET 115-3 - Digital Electronic Circuit Fundamentals I			
ET 210-3 - Digital Electronic Circuit Fundamentals II			
ET 220-3 - Electronic Controls & Industrial Applications			
ET 222-4 - Intro to Microcomputers			
ET 225-4 - Advanced Microcomputers			
ET 240-3 - Technical Troubleshooting Techniques			
ET 250-3 - Directed Field Experience			
REQUIRED RELATED COURSES:			
MA 116-3 - College Algebra			
PS 151-5 - Intermediate Physics			
EN 208-3 - Business & Tech. Writing			
CM 110-3 - Intro to Elect. Data Proc.			
PS 170-4 - Basic Electronics			
MA 117-2 - Trigonometry			

Total Credits to Date: _____

___12 of last 24 at Washburn University

___12 at School of Applied & Continuing Education

___24 at Washburn University

___42 hours (Graded)

___Cumulative G.P.A. _____

Approved by:

Advisor _____

Dean's Office _____

Date _____

ATTACHMENT C

DEFINITIONS

ARTICULATION

A. "Is a systematic coordination between an educational institution and other educational institutions and agencies designed to insure the efficient and effective movement of students among those institutions and agencies while guaranteeing the students' continuous learning advancement." (Richard J. Ernst, "Articulation: A Working Definition", Community College Review, Spring, 1978).

B. "A process of continued specific communication between institutions and common programs, with the student as the primary beneficiary, whereby the economic and timely transfer of the student between institutions is accomplished" in such a manner as "to provide the articulating student with appropriate, non-duplicative learning at the upper level institution to satisfy degree requirements," and to do so "within such a time frame as not to disrupt the continuity of education and career progression." (MICHRIE Articulation Task Force, October, 1983.)

CHALLENGE EXAMINATION

Written and/or oral and practical examination of terminal course objectives of specific courses available to Kaw Area Vocational Technical School Certificate of Completion graduates through credit by examination process.

CREDIT BY EXAMINATION

Credit granted through successful completion of an examination in recognition for knowledge equivalent to that gained through a college level course. The cost is $10.00 per credit hour for the examination, payable prior to taking the examination.

MATRICULATION EXAMINATION

Available through Washburn's Credit by Examination Process, an oral interview examination by Washburn's Electronic Maintenance Technology Program Director of Kaw Area Vocational Technical School Certificate of Completion graduates. (Interview questions open to Director of Kaw Area Vocational Technical School electronic program.)

WAIVER OF REQUIRED COURSE

The granting of exemption from ET101 to Kaw Area Vocational Technical School Certificate of Completion graduates. Students must still meet degree requirements of completing 62 credit hours.

APPENDIX B

Applied Studies - Technology Management

2 Years Applied Arts and Sciences
+2 Years Technology Management
=Bachelor of Applied Studies

The Program

The Applied Studies/Technology Management Program is designed for community and junior college graduates with degrees in the GRJC Technology Division such as drafting, industrial engineering, welding, plastics, and electronics. By completing 58-60 credits of upper division work with Grand Valley, students may earn the Bachelor or Applied Studies (B.A.S.) degree with a concentration in Technology Management.

The program is designed to develop competence and knowledge in four areas: (1) industrial technology, (2) supervision and management, (3) analysis and communication, (4) general knowledge (the liberal arts).

The Sequence

All courses are offered in the evenings through the Grand Rapids Center in downtown Grand Rapids. Most courses meet for three hours once a week (3 semester credits). The 15 required program courses are offered over a three year period. Upon completing these courses, plus 5 elective courses, and demonstrating competence in several areas, the student earns the B.A.S. degree.

Admission

Students with a two year degree in applied arts and sciences are eligible for admission. Those individuals without a degree but with technical or skilled trade experience may petition for special admission status.

Application forms are available at the GVS Grand Rapids Center, Ionia and Michigan Avenues, Grand Rapids, 49503, 456-6277; or at the Admissions Office on campus, 895-6611, Extension 344.

GRAND VALLEY STATE

Explore the technology management program downtown!

grand rapids JUNIOR COLLEGE

Requirements For B.A.S. Degree
Applied Studies/Technology Management

- An A.A.S. degree with an occupational major (62 credits)*
- Completion of technology management major (45 credits)
- Successful completion of competency examinations
- Completion of 120 semester credit hours

Projected Schedule of Classes

FALL 1982

VAL	300	Adult Development and Career Planning
MTH	312	Quantitative Applications Skills
OSH	301	Occupational Health and Safety Management

WINTER 1983

TEM	301	Technology Management
COM	302	Advanced Communication Skills
TEM	340	Science and Technology

FALL 1983

SSC	302	Human Relations
TEM	311	Quality Control
VAL	300	Adult Development and Career Planning

WINTER 1984

SSC	304	Organization and Management
TEM	322	Production Planning
TEM	350	Technology and Civilization

FALL 1984

TEM	331	Advanced Industrial Supervision
TEM	400	Industrial Problem Solving
VAL	300	Adult Development and Career Planning

WINTER 1985

TEM	321	Industrial and Labor Relations
SSC	341	Social Science and Work
TEM	410	Technology Management Special Topics Seminar

Note: Since some technology programs at GRJC require more than 62 credits, some students may be required to take slightly more credits at GVSC.

Student Planning Guide

Program Requirements			Semester Planned	Semester Completed
VAL	300	Adult Development and Career Planning		
TEM	301	Technology Management		
TEM	311	Quality Control		
TEM	321	Industrial and Labor Relations		
TEM	322	Production Planning		
TEM	331	Advanced Industrial Supervision		
TEM	340	Science and Technology		
TEM	341	Social Science and Work		
TEM	350	Technology and Civilization		
TEM	400	Industrial Problem Solving		
TEM	410	Technology Management Special Topics Seminar		
OSH	301	Occupational Safety and Health Management		
SSC	302	Human Relations		
SSC	304	Organizations and Management		
MTH	312	Quantitative Applications Skills		
COM	302	Advanced Communication Skills		

Electives

1			
2			
3			
4			
5			

For More Information, contact the Grand Rapids Center, 456-6277, or Professor Christine Falvey, 895-6611, Extension 113.

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